In the Claims

1. [Original] A full color video projector system comprising:

a. a light source, producing a lull spectrum beam in a first direction;

b. a splayed array of red, green, and blue dichroic reflector color filters, said splayed array being located downstream from said light source and being arranged so as to split said beam into red, green, and blue beam components and re-direct them in a second direction;

c. a lenticular lens array, said array being transverse to said beam components traveling in said second direction, said lens array comprised of a plurality of elongated cylindrical lenses, said cylindrical lenses being arranged in parallel, co-planar relation, each of said lenses outputting a red, green, and blue color stripe illumination pattern at a lens array focal plane;

d. a relay optic downstream from said lens array focal plane in said second direction, redirecting an incident composite of said red, green, and blue illumination pattern in a third direction;

e. a reflective micro-mirror light valve downstream from said relay optic in said third direction, said light valve including three sub-pixels for every full-color screen pixel in a full color video image, said screen pixels being arranged in parallel stripes which correspond to the size and configuration of said color stripe illumination pattern outputted by said lenticular lens array, each of said sub-pixels having an actuated state in which at least a portion of said color stripe illumination pattern is reflected in a fourth direction, and an unactuated state in which at least a portion of said color stripe illumination pattern is reflected in a fifth direction;

f. a projection lens, said projection lens having an input port directed toward said light valve, and an output port directed toward and focused upon a projection screen; and,

g. light valve address circuitry interconnected to each of said sub-pixels, said address circuitry actuating appropriate sub-pixels to redirect corresponding portions of said color stripe illumination pattern in said fourth direction and upon said input port of said projection lens, in accordance with corresponding video image information.

2. [Original] A projector system as in claim 1 further including an optical stop between said focal plane and said relay optic in said second direction, said optical stop having an aperture sized to pass selected portions of said red, green and blue beam components.

3. [Original] A projector system as in claim 2 in which said selected portions are approximately 1/3 of each said red, green, and blue beam components.

4. [Original] A projector system as in claim 1, further including a condenser lens, said lens being located downstream from said light source so as to focus said beam in said first direction.

5. [Original] A projector system as in claim 1, in which said light source is an arc lamp.

6. [Original] A projector system as in claim 1, in which said red and green color filters are splayed apart a predetermined angle, and said green and blue color filters are splayed apart said predetermined angle.

7. [Original] A projector system as in claim 1, in which said relay optic contains at least one reflective element, and is located approximately mid-way between said focal plane and said light valve.

8. [Original] A projector system as in claim 1 in which said optical relay images said color stripe illumination pattern on said light valve in a 1:1 ratio.

9. [Original] A projector system as in claim 1 in which said light valve address circuitry includes a light valve controller connected to a column driver and a row driver, and in which said column driver is connected to one connection on each of said sub-pixels, and in which said row driver is connected to another connection on each of said sub-pixels.

10. [Original] A full color video projector system comprising:

a. light means for producing a full spectrum beam in a first direction;

b. means downstream from said light means for splitting said beam into red, green, and blue beam components, and for re-directing them in a second direction;

c. means for outputting a red, green, and blue color stripe illumination pattern at a focal plane, said outputting means being transversely positioned to said beam components traveling in said second direction;

e. optical relay means downstream from said lens array focal plane in said second direction, for redirecting an incident composite of said red, green, and blue illumination pattern in a third direction;

f. light valve means downstream from said relay means in said third direction, for alternatively reflecting at least a portion of said color stripe illumination pattern either in a fourth direction or in a fifth direction;

h. a projection lens, said projection lens having an input port directed toward said light valve means, and an output port directed toward and focused upon a projection screen; and,

g. means controlling said light valve means, for reflecting at least a portion of said color stripe illumination pattern in said fourth direction, upon said input port of said projection lens, in accordance with modulation information corresponding to a video image.

11. [Previously Presented] A projector system as in claim 10 in which said optical relay means contains at least one reflective element.

12. [Original] A projector system as in claim 10 in which said optical relay means images said color stripe illumination pattern on said light valve means in a 1:1 ratio.

13. [Original] A projector system as in claim 10 in which said light valve means includes a plurality of full-color screen pixels corresponding to a full color video image, said screen pixels being arranged in parallel stripes which correspond to the size and configuration of said color stripe illumination pattern.

14. [Original] A projector system as in claim 13 in which each of said screen pixels includes three sub-pixels, each of said sub-pixels having an actuated state in which at least a portion of said color stripe illumination pattern is reflected in said fourth direction, and an unactuated state in which at least a portion of said color stripe illumination pattern is reflected in said fifth direction.

15. [Original] A projector system as in claim 10, in which said light means is an arc lamp.

16. [Original] A projector system as in claim 10 further including an optical stop between said focal plane and said relay optic means in said second direction, said optical stop having an aperture sized to pass selected portions of said red, green and blue beam components.

17. [Original] A projector system as in claim 16 in which said selected portions are approximately 1/3 of each said red, green, and blue beam components.

18. [Original] A reflective micro-mirror light valve, comprising: a plurality of full-color screen pixels, said screen pixels being arranged end to end to form parallel stripes, said parallel stripes corresponding to the size and configuration of a color stripe illumination pattern, each of said screen pixels including three sub-pixels, said sub-pixels including a reflective surface having an actuated state in which at least a portion of said color stripe illumination pattern is reflected in one direction, and an unactuated state in which at least a portion of said color stripe illumination pattern is reflected in another direction.

19. [Original] A light valve as in claim 18 further including light valve address circuitry interconnected to each of said sub-pixels, said address circuitry actuating appropriate sub-pixels in accordance with data corresponding to a video image.

20. [Original] A light valve as in claim 19, in which said light valve address circuitry includes a light valve controller connected to a column driver and a row driver, and in which said column driver is connected to one connection on each of said sub-pixels, and in which said row driver is connected to another connection on each of said sub-pixel.

21. [Currently Amended] A light valve as in claim 18 wherein the one and the another directions are the only directions in which light of the color stripe illumination pattern is reflected by the reflective micro-mirror light valve.

22. [Currently Amended] A light valve as in claim 18 wherein individual ones of the sub-pixels are configured to reflect only one color of the color stripe illumination pattern during ~~operation~~ all operations of the reflective micro-mirror light valve.

23. [Previously Presented] A light valve as in claim 18 wherein individual ones of the full-color screen pixels are configured to simultaneously reflect light of the color stripe illumination pattern having at least two different colors.

24. [Previously Presented] A light valve as in claim 18 wherein individual ones of the full-color screen pixels are configured to simultaneously reflect light of the color stripe illumination pattern having three different colors.

25. [Currently Amended] A light valve as in claim 18 wherein the color stripe illumination pattern comprises a plurality of different colors which are repetitively alternated in a common direction at a moment in time.

26. [Previously Presented] A light valve as in claim 25 wherein light of the alternating different colors of the color stripe illumination pattern is simultaneously present during operation of the reflective micro-mirror light valve.

27. [Currently Amended] A light valve as in claim 25 wherein ~~the~~ an ordering of the different colors does not change during ~~operation~~ all operations of the reflective micro-mirror light valve.

28. [Previously Presented] A light valve as in claim 18 wherein the parallel stripes collectively have a size substantially equal to the size of the color stripe illumination pattern lying within an illumination stripe focal plane upstream of the reflective micro-mirror light valve.

29. [Previously Presented] A light valve as in claim 18 wherein an area defined by all of the full-color screen pixels of the reflective micro-mirror light valve is substantially equal to an area of the color stripe illumination pattern within an illumination stripe focal plane upstream of the reflective micro-mirror light valve.

30. [New] A light valve as in claim 18 wherein the parallel stripes of the full-color screen pixels correspond to the color stripe illumination pattern upstream from the reflective micro-mirror light valve.

31. [New] A light valve as in claim 18 wherein a plurality of the sub-pixels individually reflect light of the same color during all operations of the reflective micro-mirror light valve wherein light is reflected to create an image.

32. [New] A light valve as in claim 18 wherein the color stripe illumination pattern is generated prior to being reflected by the sub-pixels.

33. [New] A light valve as in claim 18 wherein the colors reflected at a given moment in time are different for all immediately adjacent ones of the sub-pixels located in a common direction.

34. [New] A light valve as in claim 18 wherein the full-color screen pixels individually comprise a substantially square shape and respective ones of the sub-pixels of an individual full-color screen pixel comprise substantially rectangular shapes collectively corresponding to the substantially square shape of the respective individual full-color screen pixel.

35. [New] A light valve as in claim 28 wherein the color stripe illumination pattern is generated prior to being reflected by the sub-pixels.

36. [New] A light valve as in claim 29 wherein the color stripe illumination pattern is generated prior to being reflected by the sub-pixels.